

PATENT COOPERATION TREATY

From the:
INTERNATIONAL SEARCHING AUTHORITY

To:

WRAY & ASSOCIATES
Level 4 The Quadrant
1 William Street
PERTH WA 6000

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference 114622		Date of mailing (day/month/year) 06 MAY 2005
International application No. PCT/AU2005/000331		International filing date (day/month/year) 9 March 2005
International Patent Classification (IPC) or both national classification and IPC It. Cl. ⁷ F16L 15/00, 15/02, 15/04, 15/08, 27/12, 27/08, 27/087, 25/12, 55/07, 55/00		Priority date (day/month/year) 9 March 2004
Applicant TINGLEWOOD TECHNOLOGIES PTY LTD et al		

1. This opinion contains indications relating to the following items:

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|-------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer G.B. NATH Telephone No. (02) 6283 2126
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2005/000331

Box No. I	Basis of the opinion
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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | <p>With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).</p> |
| 2. | <p>With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> in written format</p> <p><input type="checkbox"/> in computer readable form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed.</p> <p><input type="checkbox"/> filed together with the international application in computer readable form.</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search.</p> |
| 3. | <p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> |
| 4. | <p>Additional comments:</p> |

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 3-8, 10, 12-13, 15-17	YES
	Claims 1-2, 9, 11, 14, 18-20	NO
Inventive step (IS)	Claims 3-8, 10, 15-17	YES
	Claims 1-2, 9, 11-14, 18-20	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims None	NO

2. Citations and explanations:

Documents:

D1: Derwent Abstract Accession No. 99-291011/25, Class Q67, JP 11094162 A (SEKISUI CHEMICAL INDUSTRIES CO. LTD), 9 April 1999

D2: Derwent Abstract Accession No., 1999-605489/52 Class Q67, JP 11264491A (OSAKA GAS CO. LTD), 28 September 1999

D3: CA 2296195A (HAYNES), 24 May 2001

D4: EP396029 B (MCGRAW), 30 September 1992

D5: US 4998756A (HART), 12 March 1991

2.1 Novelty and Inventive Step:

Novelty:

D1, D3 and D5 are the most relevant documents each of which discloses all the features defined in the independent claim 1 and thus takes away its novelty.

D3 discloses the features of claims 2, 9, 11, 14, 18-20 and thus takes away the novelty of these claims.

Inventive Step:

Claims 1-2, 9, 11, 14, 18-20 as above.

Features defined in Claim 12 is disclosed in D5 and hence is considered to lack an inventive step when read in combination. Features of claim 13 is either known in the art or are typical of the devices in the art.

2.2 All the claims conform to the criteria of Industrial Applicability

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claim is not clear at line 3 with regard to "the ends"; which ends do they refer to?
2. Claim 10 is not clear at line 1. Presumably there is a typographical error.